What is claimed is:

1.   A method for processing an image consisting of an array of pixels, the method comprising the steps of:
      performing a scan of said array of pixels in a sequential manner, each pixel of said array being scanned once in order to provide pixel data;
      identifying, using said pixel data, those pixels of the array which contain image information of significance;
      assigning each pixel containing image information of significance to one of at least one image segment, the at least one image segment including a number of contiguous pixels containing image information of significance; and,
      providing an image data output including summary information pertaining to the at least one image segment.

2.   The method of claim 1 wherein said step of assigning each pixel further comprises a step of determining, for each pixel containing image information of significance, whether there is at least one contiguous pixel assigned to a segment, in order to determine to which of said at least one segment that pixel shall be assigned.

3.   The method of claim 2 further comprising the step of selectively merging at least two segments to form a single segment in dependence upon whether one pixel containing image information of significance is contiguous with at least two pixels each assigned to a different one of said at least two segments.

4.   The method of claim 3 wherein said step of
determining is performed using a buffer register arranged
to store segment information for previously scanned
pixels of the array.

5.   The method of claim 4 wherein the at least one
contiguous assigned pixel is above a pixel in the array.

6.   The method of claim 5 wherein the at least one
contiguous assigned pixel is to the left of a pixel in
the array.

7.   The method of claim 6 wherein a register is kept of
the at least one image segment, the register being
arranged to record summation information and location
information regarding the at least one segment.

8.   The method of claim 7 wherein the image represents
human computer input.

9.   An image processing system for processing an image
consisting of an array of pixels, said system comprising:
     scanning means for scanning said array of pixels in
a sequential manner, said scanning means being arranged
to scan each pixel of said array once in order to provide
pixel data; and
     processing means for processing said pixel data to
identify those pixels of said array which contain image
information of significance; said processing means being
further arranged to assign each pixel containing image

information of significance to one of at least one image
segment, said at least one image segment including a
number of contiguous pixels containing image information
of significance;

5   wherein said processing means provides a data output
of summary information pertaining to said at least one
image segment.

10. The system of claim 9 wherein the processing means
10   determines whether each pixel containing image
information of significance has at least one contiguous
pixel assigned to a segment, in order to determine to
which of the at least one segment the pixel shall be
assigned.

11. The system of claim 10 wherein at least two segments
are selectively merged to form a single segment in
dependence upon whether one pixel containing image
information of significance is contiguous with at least
20   two pixels each assigned to a different one of the at
least two segments.

12. The system of claim 11 wherein the segment
information of the at least one contiguous assigned pixel
25   is determined using a buffer register which stores
segment information for the pixels of the previous line.

13. The system of claim 12 wherein the at least one
contiguous assigned pixel is above a pixel in the array.

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14.   The system of claim 13 wherein the at least one
contiguous assigned pixel is to the left of a pixel in
the array.

5   15.   The system of claim 14 wherein a register is kept of
the at least one image segment, the register including
cumulative pixel value and segment location information
regarding the at least one segment.

10   16.   The system of claim 15 wherein the register is
further arranged to include x-axis and y-axis cumulative
coordinate values of the at least one segment.

17.   The system of claim 16 wherein the x-axis and y-axis
15   cumulative coordinate values include x-axis*x-axis,
x-axis*y-axis, and y-axis*y-axis summation values.

18.   The system of claim 17 wherein the addition of a
pixel to one of the at least one segment includes the
20   assimilation of coordinate values for the pixel into the
registers for the one of the at least one segment.

19.   The system of claim 18 wherein the at least one
segment comprises at least two segments, and wherein the
25   merging of two of the at least two segments includes the
assimilation of corresponding coordinate values for the
two of the at least two segments into the coordinate
values of a single merged segment.

20. The system of claim 19 wherein the summation information and location information regarding the at least one segment are used after a complete scan to compute the centre and size of the at least one segment.

21. The system of claim 20 wherein additional coordinate values are used to compute shape and orientation approximations for the at least one segment.

22. The system of claim 21 wherein the image represents human computer input.

23. A computer program for processing an image consisting of an array of pixels, said program comprising:
    scanning means for scanning said array of pixels in a sequential manner, said scanning means being arranged to scan each pixel of said array once in order to provide pixel data; and
    processing means for processing said pixel data to identify those pixels of said array which contain image information of significance; said processing means being further arranged to assign each pixel containing image information of significance to one of at least one image segment, said at least one image segment including a number of contiguous pixels containing image information of significance;
    wherein said processing means provides a data output of summary information pertaining to said at least one image segment.

24. A carrier containing a computer program as claimed
in claim 23.